



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,167	12/15/2003	Yoshihiro Katsumata	Q78821	2113
23373	7590	06/15/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			BISSETT, MELANIE D	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/734,167	KATSUMATA ET AL. <i>tu</i>	
	Examiner	Art Unit	
	Melanie D. Bissett	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 17-26 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 17-26 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 09/987,077.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/03</u> .	6) <input type="checkbox"/> Other: ____ .

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 22 recites "said surface active agent", where claim 18 recites two surface active agents. It is unclear to which surface active agent claim 22 refers.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 17-21 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruta et al. in view of Mochizuki et al. Haruta et al. (US 5,182,579) can be found on the applicant's Form PTO-1449.
6. Haruta discloses an ink storing absorbent material for an ink jet made with a flexible polyurethane foam, where the foam is the reaction product of a polyol, an isocyanate, a catalyst, and a blowing agent (col. 1 lines 54-61). One embodiment shows foams having compression magnifications of 3 and cell numbers of 30-50 per inch (about 30-50 per 25 mm) (col. 15 lines 18-26). Since the ink storing material

Art Unit: 1711

serves to provide ink to the printer head, the foam is also ink permeable. Haruta teaches a compressed foam with open cells for absorbing ink (col. 2 lines 33-45), also noting that the ink can comprise a surfactant (col. 35 lines 1-3). Thus, because the foam absorbs the ink, the foam would be impregnated with a surfactant when the ink comprises a surfactant. Also, since the foams contain a surfactant-containing fluid, it is the examiner's position that the foam would be indistinguishable from a foam made by the applicant's method of claim 21 and containing an ink. In such a case, the surfactant originally adhered to the foam surface would be dispersed in the ink fluid upon contact.

7. Although Haruta teaches an ink permeable absorbing member, the reference does not teach the inclusion of a second contacting foam having a specific compression magnification. Mochizuki teaches an ink tank cartridge comprising a porous member having ink impregnated thereon (abstract). The porous member is compressed and may be provided in two or more layers; also, a separate second porous member is mentioned (col. 2 line 64-col. 3 line 11; col. 5 line 62-col. 6 line 4). Preferred porous members are formed of polyurethane foam (col. 5 lines 47-48). When the porous member contains more than one layer, the pore sizes of the layers differ in that pore sizes closer to the port have smaller pores and thus are more absorbent (col. 9 line 56-col. 10 line 4; col. 9 lines 4-13). When three layers of porous member are used, the least concentrated layer could be considered an ink permeation layer, while the other two layers having increasing absorption and compression could be considered ink absorption layers. It is the examiner's position that it would have been *prima facie*

Art Unit: 1711

obvious to adopt the layer structure/porous member plurality of Mochizuki's invention in the ink tanks of Haruta's invention to provide increasing ink flow to the printer head.

8. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruta et al. in view of Mochizuki et al. as applied to claims 17-21 and 25-26 above, and further in view of Konica Corp.

9. The references apply as above, teaching foams having ink stored therein but failing to teach denatured sodium succinate surfactants within the inks. Konica Corp teaches inks for ink jet printers having dialkyl sulfosuccinate compounds added to the inks to provide improved interval properties (abstract). It is the examiner's position that it would have been *prima facie* obvious to add denatured sodium succinate to the inks of the Haruta and Mochizuki invention in any amount necessary to optimize interval properties. Such optimization would provide foams having the claimed surfactant density.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett
Patent Examiner
Art Unit 1711

mdb